

Application No.: 10/074874

Case No.: 57202US002

Amendments to the Claims:

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Please cancel claims 35-69.

Listing of Claims

1. (Amended) A process for preparing a polarizer comprising the step of:
exposing a pre-polarizing article to radiant energy,
said pre-polarizing article comprising:
a uniaxially oriented vinylalcohol polymer film layer, and
an acid donor layer comprising a photoacid generator,
wherein said photoacid generator reacts photochemically to release one or more molecules of acid, said acid reacting catalytically with the vinyl alcohol polymer to produce vinylene segments along the vinyl alcohol polymer chain.
2. (Original) The process of claim 1 wherein said pre-polarizing article is further exposed at a temperature sufficient to effect partial dehydration of the vinylalcohol polymer to a poly(vinyl alcohol)/poly(acetylene) copolymer.
3. (Original) The process of claim 2 wherein the degree of orientation, and the degree of dehydration to a poly(vinyl alcohol)/poly(acetylene) copolymer, is sufficient to impart a maximum dichroic ratio, R_D , of at least 5.
4. (Original) The process of claim 2 wherein the degree of dehydration is 0.1 to 10%.
5. (Original) The process of claim 2, further comprising the step of heating said article at 100-200°C.

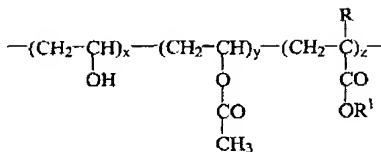
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6. (Amended) The process of claim 5 wherein said step of heating is subsequent to said step of exposing said polymer film to radiant energy light.
7. (Amended) The process of claim 5 wherein said step of heating is concurrent with said step of exposing said polymer film to radiant energy light.
8. (Original) The process of claim 1 wherein said acid donor layer comprises a coating of said photoacid generator on said vinylalcohol polymer film layer.
9. (Original) The process of claim 1 wherein said acid donor layer comprises a mixture of said photoacid generator and a polymer having a glass transition temperature of less than 25°C.
10. (Original) The process of 1 wherein said acid donor layer comprises a mixture of said photoacid generator and an amorphous polymer.
11. (Original) The process of claim 1 wherein said acid donor layer comprises a mixture of said photoacid generator and a hydrophobic polymer.
12. (Original) The process of claim 9 wherein said donor polymer layer is an adhesive layer.
13. (Original) The process of claim 1 wherein said vinylalcohol polymer comprises polymers and copolymers of units of the formula:
(-CH₂-CHOR')-
wherein R is H, a C₁-C₈ alkyl, or an aryl group; and R' is H, or a hydrolysable functional group.
14. (Original) The process of claim 13 comprising copolymers of the formula:

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where R is hydrogen or methyl;

R¹ is a C₆–C₁₈ acyl group

y is 0 to 30 mole%;

z is 0.5 to 8 mole %; and

x is 70 to 99.5 mole %.

15. (Original) The process of claim 1 wherein said vinylalcohol polymer is selected from the group consisting of poly(vinylalcohol), and ethylene/vinyl alcohol copolymers.
16. (Original) The process of claim 1 wherein said article further comprises a support layer.
17. (Original) The process of claim 16 wherein said support layer is bonded to said oriented, vinylalcohol polymer film layer.
18. (Original) The process of claim 16 wherein said support layer is bonded to said donor layer.
19. (Original) The process of claim 1 wherein said photoacid generator is selected from the group of onium salts, organometallic salts, organosilanes, latent sulfonic acids halomethyl triazines and chlorinated acetophenones.

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20. (Original) The process of claim 1 wherein said photoacid generator is used in amounts of 0.1 to 30 wt.%, relative to the amount of vinylalcohol polymer.
21. (Original) The process of claim 1 wherein said article comprises a vinylalcohol polymer film layer, a diffusion barrier layer, and said donor layer disposed therebetween.
22. (Original) The process of claim 1 wherein said vinylalcohol polymer layer is prepared by solution casting.
23. (Original) The process of claim 1 wherein said vinylalcohol polymer layer is prepared by casting from a melt.
24. (Original) The process of claim 1 further comprising the step of stabilizing the vinylalcohol polymer with a polybasic acid or derivative thereof.
25. (Original) The process of claim 24 comprising the step of contacting the partially dehydrated polymer film with a borate solution to crosslink the vinylalcohol polymer.
26. (Original) The process of claim 25 wherein said film is further stretched while contacting with borate solution.
27. (Original) The process of claim 1 wherein said radiant energy is imparted to said article in a pre-selected pattern.
28. (Original) The process of claim 27 wherein said radiant energy is imparted to said article in a pre-selected pattern by means of a mask.
29. (Original) The process of claim 1 wherein said step of exposing said article to radiant energy causes said photoacid generator to release a Bronsted or Lewis acid, said acid diffusing from said donor layer into said vinylalcohol polymer layer.

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30. (Original) The process of claim 1 wherein said oriented, vinylalcohol polymer film layer has been uniaxially oriented 4 to 7X.
31. (Amended) A process for preparing a polarizer comprising the steps of:
- a. providing an article comprising an oriented, vinylalcohol polymer film;
 - b. coating a surface of said oriented, vinylalcohol polymer film with a donor layer polymer composition comprising a photoacid generator;
 - c. laminating said donor layer with a barrier layer; and
 - d. exposing said vinylalcohol polymer film to radiant energy.
32. (Original) The process of claim 31 wherein said article of step a) further comprises a support layer bonded to said oriented, vinylalcohol polymer film.
33. (Original) The process of claim 1 further comprising the step of stabilizing said vinylalcohol polymer layer by contact with a silylating agent.
34. (Original) The process of claim 1 wherein the acid generated by said photoacid generator has a pKa value of ≤ 0 .

35-69 (Cancelled)